

UNITED STATES DISTRICT COURT  
DISTRICT OF MASSACHUSETTS  
WESTERN SECTION

Singular Computing LLC       )  
  )  
  )       19cv12551-FDS  
  )  
  )       June 30, 2021  
Google LLC                       )  
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VIDEO HEARING BEFORE: MAGISTRATE JUDGE DONALD L. CABELL.

APPEARANCES:

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1       **(Video hearing commenced at 3:04.)**

2               THE CLERK: This is the case of Singular  
3 Computing LLC versus Google LLC, Civil Action No. 19-12551  
4 will now be heard before this court.

5               Would counsel please identify themselves for the  
6 record?

7               ATTORNEY ERCOLINI: Michael Ercolini for the  
8 plaintiff Singular Computing LLC of Prince Lobel. With me  
9 today is Dan McGonagle and Brian Seeve also of Prince  
10 Lobel also for Singular Computing.

11              THE COURT: Good afternoon to all of you.

12              ATTORNEY KAMBER: Good afternoon, Your Honor.  
13 Matthias Kamber of Kecker, Van Nest & Peters on behalf of  
14 Google and some of my other colleagues are on the line as  
15 well.

16              THE COURT: All right. And good afternoon to  
17 you.

18              With that, let me just spread everything out. I do  
19 want to say at the beginning we have another matter that  
20 was continued to this afternoon at 4 o'clock in a criminal  
21 case that's being done by video but where we are really  
22 stuck with their window of time. So we are going to have  
23 a hard stop at 3:55 or so if we still find ourselves going  
24 by then.

25              So why don't we just get right to it. I've got sort

1 of a cheat sheet and I'm just going to kind of run down  
2 that and obviously other things that the parties think we  
3 need to raise as appropriate let's do it.

4 On some of the stuff I have to say, as I was going  
5 through some of these pending motions, I thought that we  
6 had actually already spoken about some of these but our  
7 internal things show they're still unresolved.

8 So on some of these it may have a feel that we're  
9 reinventing things and I hope you guys will help me  
10 understand the status of some of these, especially since  
11 as I read through them one side will say, well, maybe  
12 things are a little bit further along than you might  
13 think.

14 So with that, let's get right to it. The first one  
15 that I have, going back in time, Google had filed a motion  
16 for a protective order relating to the plaintiff's notices  
17 of deposition. This is the one at 153 on the docket and  
18 so that goes back I think to March of this year, and  
19 that's one where I actually thought we had talked about  
20 this one and worked out some sort of understanding as to  
21 how things are going to proceed. But if that's not the  
22 case, Google, let me hear from you as to what is still in  
23 play with respect to this motion?

24 ATTORNEY KAMBER: Sure. Happy to, Your Honor,  
25 and I think there is nothing in play for that motion.

1 THE COURT: Okay.

2 ATTORNEY KAMBER: We did meet and confer  
3 afterwards. What happened was the court ordered Singular  
4 to submit a single sort of amended 30(b)(6) notice. They  
5 did that. We provided our responses and objections to  
6 those. It went down from 102 or so to 46 topics.

7 We met and conferred on that. We have, so far as we  
8 can tell, agreement on 30 of the topics at this point.  
9 There are 16 that are remaining to be decided that I would  
10 characterize less as an issue with our motion for  
11 protective order and probably more fairly as an issue of  
12 the 16 topics that Singular is pursuing by way of its own  
13 motion to compel.

14 THE COURT: All right. So with respect though  
15 to the motion for a protective order, would you agree that  
16 we can deem that motion resolved or moot by virtue of an  
17 understanding between the parties?

18 ATTORNEY KAMBER: Yes, Your Honor.

19 THE COURT: All right. Thank you.

20 All right. The next one that I have is Singular's  
21 motion to compel responses to interrogatories and requests  
22 for documents. That's at 187 on the docket. That's  
23 another one I thought we had talked about the last time.  
24 Maybe we hadn't but, Singular, what is your -- what do you  
25 say to that one? Is there still stuff to talk about on

1       that one?

2               ATTORNEY ERCOLINI: There is, Your Honor. And I  
3 think that given the time constraints as well, I think it  
4 would probably be most advantageous for everyone -- just  
5 because the issues overlap so much -- to discuss the  
6 motion to compel 30(b)(6) topics as well as the motion to  
7 compel production of documents and interrogatory  
8 responses.

9               THE COURT: Wait. I want to make sure I  
10 understand what you're saying.

11              ATTORNEY ERCOLINI: Sure.

12              THE COURT: So I'm looking at docket numbers.  
13 So you're saying it makes sense to talk about 187 along  
14 with another pending motion?

15              ATTORNEY ERCOLINI: With 214 as well, Your  
16 Honor.

17              THE COURT: Okay. That's the motion to compel  
18 the 30(b)(6) testimony?

19              ATTORNEY ERCOLINI: That's correct, Your Honor.

20              THE COURT: Okay. I'm fine with that. So I  
21 will hear you.

22              ATTORNEY ERCOLINI: So I just want to start,  
23 Your Honor, by just giving a brief framework to frame the  
24 discussion.

25              We gave some slides to the court and you're free to

1 keep along with those, but this is a very basic framework.  
2 271, 35 U.S.C. 271 defines infringement, so-called direct  
3 infringement as "making, using, selling, offering for sale,  
4 and importing an invention in the United States without  
5 authority during the life of the patent."

6 So when we talk about infringement, we usually talk  
7 about selling and it's sometimes overlooked that use is an  
8 infringing act.

9 Damages as well are tied to infringement. Even the  
10 statute 284 is tied to "No event less than a reasonable  
11 royalty for the use made of the invention." Obviously  
12 that covers other acts but use is explicitly in there.

13 Unless it reads whether a damages model can track  
14 use, the *Georgia Pacific* factors, the 15 factors the  
15 Federal Circuit has repeatedly sanctioned in using in a  
16 reasonable royalty analysis expressly provide for the  
17 consideration of use of the invention.

18 Factor 11 explicitly says, "The extent to which the  
19 infringer had made use of the invention and any evidence  
20 probative of the value of that use." This is a use case,  
21 Your Honor. That is, Google infringes overwhelmingly by  
22 the use of the invention and the value to Google is  
23 overwhelmingly tied to that use.

24 Google does not sell the accused TPU boards. You  
25 cannot go pick them up at a BestBuy. You can't order them

1 off of Amazon. Google uses the boards in every one of its  
2 U.S. data centers, and by its own admission it uses the  
3 accused boards to power nearly every one of its services  
4 and products. That includes Google Search, YouTube,  
5 Google Apps, Gmail, Google Maps, Google Speech, Translate,  
6 just about everything they offer, Your Honor, even the  
7 Play Store.

8 And not only is their use of the boards extensive,  
9 including all its data centers, all its services, its use  
10 is also extraordinarily profitable to Google. In the case  
11 of its data centers using Singular's technology has  
12 enabled Google to enjoy vastly more machine learning  
13 compute power at a fraction of the cost, at a fraction of  
14 the energy consumption, at a fraction of the footprint of  
15 alternatives.

16 THE COURT: Mr. Ercolini, is that demonstrable?  
17 How do you know that?

18 ATTORNEY ERCOLINI: This is based on Google's  
19 own statements. Google has admitted that it uses  
20 Singular's invention, what is accused, the accused product  
21 to power all of these services. And if you look at our  
22 interrog -- sorry -- our slides, the last slide is from an  
23 interrogatory response directly from Google.

24 As to the data centers, Your Honor, Google has made  
25 public statements about how its TPU products basically

1 avoided having to build -- to double its data center  
2 footprint at a cost of almost a billion dollars apiece and  
3 that's ten data centers. That's a lot of money.

4 So knowing all of this, Your Honor, Google --  
5 Singular has served in many cases almost a year ago  
6 production requests, interrogatories, and a notice of  
7 30(b)(6) deposition to get at this information. How  
8 valuable is Google's use of the invention? What are its  
9 cost savings? This is a well accepted methodology for  
10 looking at a royalty, and we can discuss in detail every  
11 one of these requests but they're basic information.

12 The bottom line though is, Your Honor, we're three  
13 weeks away from the close of fact discovery and despite  
14 having served many of these requests or topics nine months  
15 ago in the case of the deposition topics, eleven months  
16 ago in the case of the request for production, three  
17 months in the case of interrogatories, we still don't have  
18 responses. We don't have a single witness who has been  
19 designated on a single topic, Your Honor.

20 THE COURT: This is all designed just to help  
21 one understand how valuable is this product to you? How  
22 much money does it help you save? How much time does it  
23 help you save? How much more efficient are you by virtue  
24 of using this product?

25 ATTORNEY ERCOLINI: That's correct, Your Honor.



1           THE COURT: All right. Mr. Kamber, in  
2 principle, let's stay away from the specifics in terms of  
3 the scope of material that might be sought and whether  
4 that might be considered onerous or the like, in principle  
5 do you object to providing discovery that would allow them  
6 to understand how Google assesses the value of this  
7 product as used in the various things that Google does?

8           ATTORNEY KAMBER: No, and we haven't limited  
9 discovery in that way, Your Honor.

10          THE COURT: We are here on a motion so what  
11 would they say -- I mean, we're here. You say you haven't  
12 limited discovery. There's a motion to compel in front of  
13 me that tells me that they've tried to get something and  
14 you haven't given it.

15          So what is it that you find objectionable about these  
16 efforts to obtain this sort of discovery?

17          ATTORNEY KAMBER: We have a practical issue of  
18 the fact that we haven't really met and conferred on a  
19 number of these so let me just start with that. I think  
20 unfortunately we're doing some of that here live, but --

21          THE COURT: Hang on for a second because that  
22 may matter. I saw that in your papers.

23          ATTORNEY KAMBER: Yes.

24          THE COURT: It's been a recurring thing, but I  
25 guess I assumed that prior to coming in here today the

1 parties would maybe have spoken on some of this stuff so  
2 that part of it at least would be not an issue any longer  
3 and we'd actually only be dealing with what the parties  
4 actually agree is in dispute.

5 ATTORNEY KAMBER: Unfortunately I think we're  
6 going to be dealing with that live in front of Your Honor.

7 THE COURT: Mr. Ercolini?

8 ATTORNEY ERCOLINI: That's incorrect, Your  
9 Honor. I met and conferred with Mr. Kamber on the  
10 deposition topics right after they served the objections  
11 and Google was categorical in its response.

12 Your Honor, just to be clear when they say that  
13 there's -- these issues haven't percolated enough and  
14 there's no impasse and we're coming to the court  
15 prematurely, you can look at their oppositions to the  
16 motion because it flies directly in the face of what  
17 they're saying.

18 They are objecting across the board to the  
19 information we are requesting and they're basically trying  
20 to pin us to a smallest saleable unit. They've agreed to  
21 produce information and witnesses in response to one of 17  
22 services. They think that it's completely  
23 disproportionate to the needs of the case and it's not  
24 relevant. They think it's a fishing expedition.

25 If there's any doubt about that, Your Honor, their

1 motions -- their oppositions opposing our requests make it  
2 very clear. They're trying to have it both ways.

3 So we have met and conferred. We are at an impasse  
4 and again we're three weeks out from the close of  
5 discovery. These requests have been out there for a year  
6 and we still don't have witnesses; we don't have any  
7 documents; and we don't have responses to interrogatories.

8 THE COURT: All right. So, Mr. Kamber, you  
9 listened to Mr. Ercolini's presentation a few minutes ago  
10 when he described the sort of information they're seeking  
11 and you were starting to tell me that in principle you  
12 don't find it to be objectionable.

13 Where do you draw the line? Where is it that you say  
14 this request is either over broad or goes too far?

15 ATTORNEY KAMBER: Where we draw the line, Your  
16 Honor, is that there is a business unit that handles the  
17 design and the production of these accused products.  
18 There are these TPU chips. What's at issue is actually  
19 something that's deep inside the TPU chip inside,  
20 something called the MXU and then there are these little  
21 execution units in there.

22 There's a group that designed that. They built it  
23 and they have tried to value that technology in various  
24 different ways. We have produced all of those documents.  
25 We've produced all of that from the core group that works

1 on it. We are willing to produce a witness on that.

2 THE COURT: Can I stop you just for my  
3 clarification?

4 ATTORNEY KAMBER: Sure.

5 THE COURT: When you say they have tried to  
6 value it, figure out how to value it, what are you talking  
7 about when you say that? Meaning they've tried to  
8 quantify how much Google actually saves by not having to  
9 spend more, use more power to use a different type of  
10 component that would go onto the chip, or do you mean  
11 something else?

12 ATTORNEY KAMBER: No. I mean that there are  
13 analyses from that group that have tried to -- whether you  
14 can say it's quantified, I don't know. It's more  
15 qualified I would say in that these documents, some of  
16 which we've produced and on which we are willing to  
17 provide a witness as we have said in our papers, those --  
18 that material, that discovery material is out there that  
19 basically says, yes, we use these TPU chips to run various  
20 different things in various different product lines.

21 We're willing to produce a witness on that as well as  
22 the business unit -- there is one business unit as Mr.  
23 Ercolini said, he's right, that sells these services.  
24 That is, it's true you can't go to a BestBuy and buy a TPU  
25 chip, but you can basically rent one over the internet and

1 run your programs on it like people used to run things on  
2 big super computers kind of remotely. That's how this  
3 works.

4 So there is a market for these things. It's used.  
5 It's being sold in that way, and we have said we are  
6 willing to provide you with the cost and the financials  
7 and the performance of that business group.

8 Where we have the objection, where we have the issue  
9 it really turns out to be a practical one, sort of what is  
10 reasonable. What they're saying is you need to go out to  
11 each and every business unit. You need to provide the  
12 financials, the raw financials for Google's apps, for  
13 Google Search, for YouTube, for things that somehow may  
14 use -- mind you they're not using it for everything and  
15 there's no way if they have the raw financials, they  
16 couldn't tell -- there's no way to be able to tell what is  
17 coming from the use of the TPUs or anything else.

18 That's why this is of very marginal relevance, if  
19 any, frankly because the data that they're seeking, the  
20 documents or the testimony, doesn't get at the value of  
21 either the TPU itself. It doesn't get at the value of the  
22 patented technology that is of a subpart.

23 THE COURT: I think you just froze. You froze  
24 about maybe 12, 13 seconds ago so you may want to repeat  
25 your last couple of sentences.

1           ATTORNEY KAMBER: Sure. I'll try my best, Your  
2 Honor.

3           What they appear to be looking for here, Your Honor,  
4 is the financials for all of Google's business units  
5 without any showing of the extent to which they're using  
6 this for. How it would even demonstrate the value of the  
7 use.

8           We are willing to provide the testimony and the  
9 evidence and the documents that we think actually try to  
10 get at this. We don't think there's anything to be gained  
11 and certainly there's nothing to be -- it would be a  
12 various onerous task to say you need to provide the  
13 financials for all of Google's business in effect. That  
14 is just not called for.

15           THE COURT: I agree that that would -- just like  
16 that, that's just too out there. That's too broad.  
17 However, isn't there somewhere in the middle?

18           I mean, after all if Google is making statements to  
19 the effect this component is really valuable to us in a  
20 number of ways and it has saved us money and it has made  
21 us more efficient, I find it hard to believe that Google  
22 wouldn't be able to show that by, say, comparing costs  
23 from the time before they were using the component to  
24 costs now or to output if this is allowing machines to  
25 operate more efficiently.

1           So maybe that stuff is not as sexy to Singular.  
2       Maybe they are interested in raw financials. But if we  
3       are focusing on information that would allow them to  
4       determine how Google assessed the value of this product,  
5       that sort of data, which I do think might include some  
6       financials, would be germane.

7           Do you disagree with that? And do you disagree that  
8       there might be information like that that you have not yet  
9       produced that would bear on that?

10           ATTORNEY KAMBER: Some of it we have produced.  
11       There is some more of it that we have found in response to  
12       these requests that we are willing to produce, and there  
13       is a witness that we have identified who would testify as  
14       to those things.

15           That is, there is a witness -- there is somebody that  
16       we know and who's produced documents on this and who could  
17       explain those documents who has tried to evaluate the  
18       value and the benefits of the TPUs, not this particular  
19       technology because no one is getting that into the weeds,  
20       but the TPU chips in general to some of the other business  
21       units. That's a person that we are willing to provide to  
22       testify and documents that we already have and will  
23       continue to provide. We have no problem with that, Your  
24       Honor.

25           THE COURT: You say to some of the business

1 units, what about with respect to some of the others? Is  
2 it there's nobody who's yet kind of undertaken an  
3 assessment or what?

4 ATTORNEY KAMBER: That's right, Your Honor.  
5 Based on what we have seen of the 16 business units, we've  
6 looked around and there are not people who -- they're not  
7 doing that work. It's kind of like the work is being done  
8 within the TPU. The group that it comes out of is called  
9 the Platforms Group, Your Honor, and they have done a  
10 valuation -- I hesitate to call it a valuation because  
11 it's not a hard number or anything like that, but they  
12 have try to qualify the benefits because that's their job.  
13 Right? They're trying to sell that product internally to  
14 people on the other side of it based on thus far our  
15 reasonably diligent search.

16 We're not aware of other product units having done  
17 any kind of final analysis or any kind of analysis for  
18 that matter of the value of these TPU products to the  
19 businesses.

20 THE COURT: What about at a higher level of the  
21 company -- and I have no idea how Google operates or how  
22 this part of the world operates -- but would there have  
23 been discussions where somebody said, yes, let's go with  
24 this component versus another component that's out there?  
25 So all of our different centers are going to use this and



1 we think this is great for all of the following reasons,  
2 and maybe there are board meeting minutes; maybe there  
3 were reports that were submitted in support of the pitch  
4 to use this component. Is there stuff like that out  
5 there?

6 ATTORNEY KAMBER: Not that I've seen, Your  
7 Honor. Now, the answer is -- I qualify it a little bit  
8 because these TPUs that are being used, the other thing  
9 that's often used for machine learning at Google and in  
10 general are Graphic Processing Units, GPUs. It turns out  
11 they're very good at doing machine learning as well as  
12 playing games on computers, and there are some comparisons  
13 that have been done and we've produced this material as  
14 well of the TPUs and the GPUs. That is an issue and in  
15 patent law damages sometimes the next best non-infringing  
16 alternatives and how things compare to other technologies.

17 We've said in response to other topics that aren't at  
18 issue and that aren't a subject of the motion to compel  
19 that we're providing documents and we're providing a  
20 witness on that type of comparison. So I think we are  
21 already providing that, Your Honor.

22 THE COURT: Okay. But circling back, there's  
23 not necessarily one place where somebody can look at to  
24 understand from Google's vantage point how much of a  
25 financial benefit it is to have this component in place as

1       opposed to another component?

2               ATTORNEY KAMBER:  There's certainly not -- I  
3       would say the answer is no setting aside the analyses that  
4       were done by the Platforms team on the benefits of the  
5       TPUs to some of the other business units.

6               THE COURT:  And that you said you have no  
7       objection to?

8               ATTORNEY KAMBER:  That's right.  Absolutely.

9               THE COURT:  All right.

10              So, Mr. Ercolini, just help me understand.  So you've  
11     been listening to all of this and you're more kind of  
12     keenly attuned to this, what category of information of  
13     discovery is missing that you say no, no, no, there is an  
14     area I'm not probing into that you know is out there that  
15     you think should also be out there?

16              ATTORNEY ERCOLINI:  So, Your Honor, the first  
17     thing we would say is cost savings from reduction at data  
18     center infrastructure and construction.  That's enormous.

19              So this is -- you can say it's a great technology.  
20     This is a technology that Google itself has said avoided  
21     building ten new data centers at a cost of up to 750  
22     million dollars -- up to a billion when you factor in  
23     maintenance.  That's enormous.  We need to know what that  
24     is because --

25              THE COURT:  Hang on.  What do you mean you need

1 to know what that is? You've got the statement. You said  
2 we no longer have to build these. So what more do you  
3 want?

4 ATTORNEY ERCOLINI: Well, the statement is great  
5 but actually getting to ask someone about who did this  
6 analysis, where are the documents that are generated?

7 Google does not make an investment of this size with  
8 this big a leap without having papered it up to the gills.  
9 So the suggestion that no one has looked at this, there's  
10 no way that hasn't happened.

11 The cost savings in the reduction from the operating  
12 costs of the data centers, which is enormous because again  
13 this is a fraction of the power draw. It is a fraction of  
14 the footprint, the operating costs.

15 THE COURT: On that let me ask you a question.

16 When you say that the cost savings, you're really  
17 looking for not cost savings. You're looking -- it seems  
18 to me you're going to be looking for two sets of sort of  
19 financial lists or information or whatever because the  
20 only way to make that -- the only way to determine there's  
21 been a savings is to look at what they were paying or what  
22 were thinking they were going to have to pay versus what  
23 they actually ended up paying, right?

24 ATTORNEY ERCOLINI: Well, Your Honor, that may  
25 be true but we're actually looking at forecasts and

1 projections because with a hypothetical negotiation we  
2 start at the date of first infringement. So forecasts  
3 would have been tremendously important; analysis that was  
4 done in advance would have been tremendously important  
5 because that's what the parties would have known at the  
6 time of the hypothetical negotiation. So we do need those  
7 forecasts; we need those analyses.

8 THE COURT: All right. Mr. Kamber, do those  
9 exist?

10 ATTORNEY KAMBER: So let me try to just back up  
11 for one second, Your Honor.

12 Before we were talking about the revenues, cost  
13 financials with respect to -- there are a lot of topics  
14 with respect to the accused products and then they kind of  
15 have this accused services by which they mean actually  
16 just anything that happens to use it as part of the  
17 running of the business. That's one category of problem.

18 Mr. Ercolini just changed gears in response to your  
19 question and is now talking about the cost saving stuff so  
20 let me talk about that.

21 THE COURT: He didn't change gears. I actually  
22 asked him -- hang on, Mr. Ercolini.

23 ATTORNEY ERCOLINI: Sorry.

24 THE COURT: He didn't change gears. I asked him  
25 to tell me what other things out there, assuming we dealt

1 with the one we were talking about, did he -- was he also  
2 interested in? So that's on me; that's not on him.

3 ATTORNEY KAMBER: Fair enough, Your Honor.

4 With respect to cost savings here's the issue, a few  
5 of the issues actually. So the cost savings theory that  
6 they have is based on there was a first version of these,  
7 TPU version one. It was called Sea Star and the statement  
8 about saving money was based on that version.

9 Notably that version is not accused. It works very  
10 differently. It works for something called the actual  
11 Inference and not for Training, which is what the chips  
12 that are accused of in our case. So it's a bit of a leap  
13 to say, you know, you save ten billion dollars because of  
14 these chips because the chips about which that statement  
15 was made are explicitly not accused in this case.

16 Beyond that, what we've said is we are going to give  
17 you a witness. We have identified a witness from the  
18 technical infrastructure group. They are the ones that  
19 allocate resources and costs to deploying the TPUs in the  
20 data centers. We're going to have somebody who can speak  
21 to the financials, the costs with respect to that.

22 Now data centers are profit centers. There are costs  
23 and so it's really more just costs associated with them,  
24 and we are going to produce and producing plans back to I  
25 think 2015 is what we've proposed that show what it looked

1 like before and what it looked like afterwards.

2 Where we've gotten into a fight about this is they  
3 say, well, we want everything about a data center. We  
4 don't want just the stuff about the TPUs and how you  
5 deploy them. We want the price of pouring the concrete  
6 and we want the price for the light bulbs for the data  
7 centers and that's just getting way too far afield of  
8 what's going on here.

9 I mean, there's an accused product here. Data  
10 centers have a lot of stuff in them and there's no reason  
11 why we have to do everything. That's just well beyond the  
12 scope of this case.

13 THE COURT: Mr. Ercolini, where do you think is  
14 a fair place to draw the line? I understand your theory  
15 and in theory I understand how one can get to a point  
16 where the cost of building the data center theoretically  
17 might be encompassed, but I also do think that's going a  
18 little too far afield. So what do you propose?

19 ATTORNEY ERCOLINI: Your Honor, I want to back  
20 up for a second to what Mr. Kamber said. I want to back  
21 up on two points.

22 On the services we had a list of things that we did  
23 want. We do have things on the services that we would  
24 like to address, but to address the data center issues.  
25 Mr. Kamber made reference to Sea Star which was TPU-1,

1 which they're saying all of the savings, the cost savings  
2 that they were referring to, the ten million dollars,  
3 that's all on Sea Star.

4 What he's neglected to mention is that Sea Star does  
5 Inference. It doesn't do Training. There are two parts  
6 to machine learning. There's Inference and Training.  
7 Inference is one third of the problem. Two thirds of the  
8 problem -- two thirds of the cost is Training and that's  
9 what the TPU that's accused, the TPUs that are accused  
10 that's what they do.

11 So the gravaman of the -- or at least the bulk of the  
12 ten billion dollars that we're talking about, I think it's  
13 more than that, that is from Training and that is largely  
14 because of the improvements made by Singular's invention.

15 This is, this is -- when we talk about avoiding  
16 building data centers, I'm not sure where to stop there,  
17 Your Honor, because if you have to build a data center,  
18 you have to build it.

19 THE COURT: I'm not -- listen, we're not going  
20 to get into something where how much for the concrete?  
21 How much for this? It could be how much to build a  
22 center. Do you really need it down to how much plywood is  
23 being used and all of that?

24 I mean, isn't there's an easier way for you to assess  
25 the damages without getting reams and reams and reams of

1 details on what it takes to build a center?

2 ATTORNEY ERCOLINI: So what Google literally  
3 said was just to keep up with the demands of people using  
4 Google Voice for three minutes a day, if everyone used it  
5 for three minutes a day, it literally would have had to  
6 double its data center footprint. That means pouring  
7 concrete; it means buying plywood; it means buying land;  
8 it means all the infrastructure that goes into that. It  
9 doesn't have to do that. It has saved the cost of doing  
10 that largely because of this.

11 THE COURT: All right. So all you have to do  
12 though is know how much it cost to make one data center.

13 ATTORNEY ERCOLINI: That's correct, Your Honor.

14 THE COURT: All right. So that's digestible.  
15 That's easy enough.

16 Mr. Kamber, isn't that something that Google can  
17 readily provide?

18 ATTORNEY KAMBER: Honestly, Your Honor, I don't  
19 know because these aren't -- these are custom built. Not  
20 every data center is the same.

21 THE COURT: Look, you can't have it both ways.  
22 Because the hard way is, look, all right. Let's look at  
23 all of your data centers. Let's average the cost of them.  
24 Let's come up with a figure and then we'll go with that.  
25 Or you can if it's -- well, maybe that's not the hard way.



1           Even if what you're saying is true, it seems to me  
2           that's probably the easiest of the things that we're all  
3           talking about to come up with an average figure for a data  
4           center. Of course, not every one is going to be identical  
5           in size and shape and cost, but there's got to be an  
6           average figure that reasonable minds would agree could  
7           represent the value of a data center.

8           Beyond that it's whatever Singular can ultimately  
9           show if we get that far as to how many data centers would  
10          have had to have been built and thus what damages might  
11          look like. But we can avoid having to require Google to  
12          provide all of the underlying details regarding the  
13          construction of a data center, which I just don't think is  
14          necessary here.

15                 ATTORNEY KAMBER: What I think I can do right  
16          now, Your Honor, is represent that we would have that  
17          witness from the technical infrastructure team try to  
18          provide a number -- try to provide testimony on whatever,  
19          an "average" data center cost all in in terms of what that  
20          number is. I don't -- sitting here today I haven't seen  
21          that number. I've never heard of somebody talk about it  
22          or seen a document about it.

23                 THE COURT: Let me deal with that this way. If  
24          that information is available, I think that's reasonable  
25          in terms of --

1 ATTORNEY KAMBER: Fair enough.

2 THE COURT: -- what Singular is looking to do.  
3 So I would say if it exists in document form and it's been  
4 requested through a request for production of documents,  
5 it should be answered that way as well as an interrogatory  
6 and as well if it's going to be a topic for a 30(b)(6)  
7 designee I think that's fair game. So Google should  
8 proceed accordingly in that regard.

9 Now, just before we go forward, with respect to the  
10 earlier stuff you were talking about, to the extent we  
11 didn't get resolution, Mr. Kamber, on all those things  
12 that you said Google has been willing to make somebody  
13 available to talk about certain things and information  
14 that you have that you're ready to produce, yes, please  
15 do. Please do produce the information that you said you  
16 would produce. Please do have the witness prepared to  
17 talk about those subject matter areas. Okay?

18 ATTORNEY KAMBER: Yes. Absolutely, Your Honor.

19 THE COURT: Okay. So, Mr. Ercolini, then what  
20 still remains with respect to this?

21 ATTORNEY ERCOLINI: The incremental revenues  
22 from advertising and profits on those as well, they have  
23 actually done these studies. We've seen snippets of  
24 documents that have looked at profitability. They've  
25 looked at incremental revenues attributable to the accused

1 products.

2           So if that analysis has been done, it really should  
3 be produced for as many services as they can. We don't  
4 need to get all of the raw data. We don't need them to  
5 open the books. But if they've done these analyses, we  
6 need to see them because they are a large measure of the  
7 use that Google puts the TPUs to.

8           THE COURT: Mr. Kamber, I'll give you a chance  
9 to respond. I agree with Mr. Ercolini that if that data  
10 exists and in particular if there is data that is so, so,  
11 you know, finally honed that it actually allows one to  
12 determine how revenues were affected by the use of this  
13 product, I think that's core to what we're talking about  
14 here. And so if it does exist, it seems to me that's fair  
15 game and should be produced.

16           Do you have an issue with that?

17           ATTORNEY KAMBER: I don't have an issue.  
18 Hopefully you can hear me, Your Honor.

19           THE COURT: I can hear you fine.

20           ATTORNEY KAMBER: I don't have an issue in terms  
21 of whether that analysis has been done or that -- I'm not  
22 sure what analyses Mr. Ercolini is referring to.

23           Again, I'm aware of some efforts to try to qualify/  
24 quasi-quantify these benefits or these impacts, and for my  
25 commitment earlier that is something for which we

1 anticipate providing a witness and having him testify.

2 THE COURT: Okay. So if that information  
3 exists, I am ordering that it be included both in document  
4 form. So these analyses --

5 ATTORNEY KAMBER: Right, of course.

6 THE COURT: -- please produce it and as such the  
7 witness should be prepared to comment on them during any  
8 deposition.

9 ATTORNEY KAMBER: Yes, both. I didn't mean to  
10 suggest that it was only one of those, Your Honor.

11 THE COURT: No, I know. I'm just doing this in  
12 the interest of thoroughness just making sure because once  
13 we go past these things, I hope we don't have to come back  
14 to them.

15 All right. So, Mr. Ercolini, you got that. What's  
16 next?

17 ATTORNEY ERCOLINI: I will just say that to the  
18 extent it doesn't exist, you know, these -- we're not here  
19 on a Daubert motion. These are services that Google has  
20 admitted that it uses in conjunction with the accused  
21 product. It uses to power it and it has made those  
22 products more profitable. If they haven't done that  
23 analysis, I think that we should be allowed to do that  
24 analysis from, you know, revenues and profits.

25 THE COURT: Well, hang on. Hang on. Now you're

1 talking about something else.

2 You started by saying you understand these analyses  
3 have been done and if they have been done, we ought to get  
4 this stuff and I'm agreeing with you. I don't know what  
5 happens if it turns out they haven't been done. That's  
6 not before me. So I don't know how to respond to that  
7 last part of what you said, which is we ought to be  
8 permitted to do something, to do our own.

9 ATTORNEY ERCOLINI: I won't snatch the victory  
10 from the jaws --

11 THE COURT: I was just going to say --

12 ATTORNEY ERCOLINI: It's the other way around.  
13 Okay. Thank you, Your Honor.

14 We did, we did -- if there is time, we did want to --  
15 we have another motion that's currently pending. Again,  
16 Your Honor, we have three weeks left in the schedule.

17 THE COURT: Hang on. Does that mean, Mr.  
18 Ercolini, that we're done with basically 187 and 214?

19 ATTORNEY ERCOLINI: To the extent that Google is  
20 going to provide witnesses, broad responses, and documents  
21 and soon because again we've got three weeks left and any  
22 follow up we need, we really want to do in a hurry. We've  
23 had these pending for a year but we do have another motion  
24 that is urgent.

25 THE COURT: I understand, but you're just not

1 giving me a simple answer. I want to make sure because  
2 what we're always concerned about is did we deal with this  
3 motion and I just want to hear you say that of the things  
4 that you wanted to raise, we've kind of addressed them and  
5 then I will happily move on to the motion you're referring  
6 to.

7 ATTORNEY ERCOLINI: Yes. Correct, Your Honor.  
8 We believe we are done with those motions. Thank you.

9 THE COURT: Okay. So the one that you are then  
10 referring to is I think at 288, which is your motion for  
11 expedited briefing and to compel a production of  
12 documents.

13 ATTORNEY SEEVE: I believe it's 228, Your  
14 Honor.

15 THE COURT: I'm sorry, 228.

16 On that one you've moved to compel to produce  
17 documents responsive to your second set of requests to  
18 several requests for production.

19 You also want Google to identify previously produced  
20 documents that are responsive to those same numbers.  
21 Google hasn't opposed this motion yet. I don't know if  
22 you guys have conferred on this one yet, but let me hear  
23 you, Singular, and then I will hear from Google.

24 COURT REPORTER: Could you identify yourself  
25 please?

1           THE COURT:  Whoever is speaking, please identity  
2 yourself.

3           ATTORNEY SEEVE:  This is Brian Seeve on behalf  
4 of plaintiff Singular LLC.  Thank you, Your Honor.

5           So we have conferred and met regarding this motion,  
6 the topics that are covered therein.  It's a simple issue  
7 and one that I think we can get through quite quickly.

8           We have a set of requests for production and a set of  
9 -- a set of requests for production, excuse me, that are  
10 directed very, very narrowly to very specific documents  
11 that relate to two topics.  First the topic of  
12 infringement, which is obviously a key topic in a patent  
13 infringement lawsuit; and, second, the topic of damages,  
14 which we've just gone through in some detail.

15          The documents --

16          THE COURT:  Could you just try to keep your  
17 voice up?  Because the court reporter is taking everything  
18 down and I think you're some distance away so every once  
19 in a while you --

20          ATTORNEY SEEVE:  We can switch a little bit.

21          So let me first talk about the documents that relate  
22 to infringement.  These are fundamental documents that go  
23 directly to the question of how the accused products work  
24 and in particular the underlying mechanisms that deal with  
25 the accused portions of the products and how they relate

1 to the claims at issue.

2 One of them, for example, is called -- and I don't  
3 want to get into more detail than is necessary -- the TPU  
4 microarchitecture specification. The TPU is a crucial  
5 component of the accused product and this  
6 microarchitecture specification is essentially a blueprint  
7 document that describes how it works. These documents are  
8 crucial in order to meet our burden of proving that  
9 infringement of the asserting claims is in fact the case  
10 and so we need these documents.

11 They were required to be produced under the local  
12 rules back in October as part of the defendant's  
13 obligation to produce documents that detail the workings  
14 of the accused products as part of their non-infringement  
15 contentions. They weren't.

16 They weren't produced in any of Google's subsequent  
17 productions. The only reason we know that such documents  
18 exist is because as attachments to various emails that  
19 have been produced we've received drafts of these  
20 documents, and these drafts are very much works in  
21 progress.

22 As exhibits to this motion show, we've received one  
23 draft of the MXU architecture specification that's 30  
24 pages long; another draft that's 60 pages long. I'm  
25 speaking from memory but I believe that's the case, and



1 both drafts have comments in the margins that make it very  
2 clear that these are works in progress.

3 What we have asked for are the final versions of  
4 these documents that actually detail how the accused  
5 products work. We've been told either that Google refuses  
6 to produce such documents because they've already been  
7 produced, in which case we asked them for the Bates  
8 numbers and they refused to give them to us. Or we've  
9 been told in some cases that these requests are over  
10 broad, and in some cases we've been told that these  
11 requests -- Google is unwilling to satisfy unless we have  
12 a further meet and confer, which we've already had one of.

13 THE COURT: Let me ask you a question. To the  
14 extent that you have gotten drafts or sort of works in  
15 progress as you described them previously, what sort of  
16 requests were those in response to?

17 ATTORNEY SEEVE: So I believe that most of those  
18 were in response to requests for custodial emails and  
19 these documents that we received, these drafts happened to  
20 be attached in draft form to emails that various people at  
21 Google were passing back and forth. So we know that these  
22 documents exist and that's how we know that they exist.

23 We also know where they exist because Google has a  
24 system that we've seen from these documents, an internal  
25 system of links that it uses to reference documents and

1 share them and collaborate with other people. And so  
2 these requests for production have asked for documents at  
3 very particular links that we know exist and Google has  
4 yet to provide those documents to us and for reasons that  
5 aren't clear to us since Google has yet to oppose our  
6 motion.

7 THE COURT: If you get these documents, how  
8 voluminous would they be?

9 ATTORNEY SEEVE: So in part I don't know the  
10 answer to the question because we haven't yet gotten the  
11 documents. But given that one of the drafts of these  
12 documents was 30 pages long and another was 60 pages long  
13 and there's approximately ten such documents at issue here  
14 at least regarding infringement, we wouldn't expect these  
15 documents to be more than a few thousand pages at most.

16 They're complicated specifications that describe  
17 complicated electronic products and so they're not tiny,  
18 but it's not a fishing expedition type of request.

19 THE COURT: So, Mr. Kamber, what I heard in  
20 short order is that these are documents that appear to be  
21 relevant to this lawsuit. They already exist. People  
22 know where they are. Versions of them have been produced  
23 previously.

24 So is there an objection to producing the final  
25 blueprints to use the word that was offered here? And if

1 so, what is the nature of the objection?

2 ATTORNEY KAMBER: So we haven't had a chance to  
3 file our opposition yet, but I'm going to try to do this  
4 based on what I know would be in there, Your Honor, and  
5 that is the blueprints for how these chips are built is  
6 the system Verilog code. That's a hardware description  
7 language that defines how the circuits look.

8 We have made that available for inspection since  
9 November and I believe they have had multiple  
10 opportunities to look at that and have looked at it.  
11 Those are the blueprints.

12 From those blueprints, Google created these  
13 microarchitecture specifications. Sometimes it goes the  
14 other way around but the engineer who was the lead  
15 architect can explain and has a declaration ready that  
16 says in this particular case we designed the chip first  
17 and we documented it after.

18 So there is no necessarily hard and fast thing that  
19 got sent to a manufacturer that is the ground truth. The  
20 ground truth is the system Verilog code. There are  
21 different drafts of this microarchitecture specification  
22 and we have provided -- in fact, I think we provided this  
23 as well back in November -- the thing that -- the  
24 "closest" thing to final that we have. It might --

25 THE COURT: I get that. I mean, well, I'm

1 hearing that. That's good. That's good. So if you've  
2 gone that far, is there a problem with just sort of  
3 completing the loop and providing the final  
4 specifications, the final iteration of those?

5 ATTORNEY KAMBER: The point is we don't think  
6 there is such a thing, Your Honor, based --

7 THE COURT: If there isn't -- I don't mean to  
8 cut you off, but I'm also looking at the clock. I want to  
9 make sure we really hone in on this.

10 ATTORNEY KAMBER: That's fine.

11 THE COURT: And this is part of the rules. I'm  
12 not lecturing the lawyers, but you guys understand this.  
13 One key component of the discovery process is if the  
14 documents don't exist, you tell the other side they don't  
15 exist.

16 ATTORNEY KAMBER: We have, Your Honor.

17 THE COURT: Okay. Again, I'm not lecturing you.  
18 I'm just saying that's often -- I mean, we encounter this  
19 a lot.

20 The other is telling them they do exist, we're just  
21 not going to give them to you. If it's as simple as, look  
22 we've given you what we've got. I know what you're asking  
23 for. I'm not refusing to give it to you. I just don't  
24 have it to give to you. All right. That should go into a  
25 response and then we can go accordingly from there.

1           If Singular has a basis though to believe that's not  
2 correct, well, then we can deal with that. But are you  
3 saying, Mr. Kamber, there is -- you understand what Mr.  
4 Seeve was just talking about.

5           You're saying that that doesn't exist? I know what  
6 you want, but we don't have it?

7           ATTORNEY KAMBER: With respect to the  
8 specifications, I know what you want. I agree it's  
9 relevant. I think it's already been produced. We've done  
10 a reasonably diligent search. We are not aware of any  
11 other final complete whatever version, whatever he wants  
12 to call it.

13           We've talked to the engineer, the lead architect  
14 about this. We are not aware of anything else that we  
15 could or would be able to produce in response to his  
16 request.

17           As to the other things, just very quickly, Your  
18 Honor, because I think this will be mooted perhaps by the  
19 time we file a response is, yes, there were documents that  
20 we produced that had links to other documents. That's the  
21 other category that Mr. Seeve mentioned.

22           They said, hey, we want what is linked to these  
23 particular documents and they were very specific and it  
24 was helpful to have that list, but it's onerous. It takes  
25 a long time to manually go through these. Sometimes you

1 need to get internal access and permissions to pull them.  
2 It's on the order of hundreds of documents and so it's a  
3 laborious process.

4 I think we're most of the way through it and I am  
5 hopeful we're actually able to produce it by this Friday,  
6 though it might take over the weekend and the holiday to  
7 get that out, but there's no issue there. We've always  
8 said we are producing those. We will produce those and  
9 it's just taking time, and again we noted that in the meet  
10 and confer process as well.

11 THE COURT: All right. So, Singular, what  
12 you've heard is with respect to the first batch you've got  
13 what they've got. And with respect to the second those  
14 links, you're going to get it very soon within the week.

15 What do you say to that? Does that effectively deal  
16 with the concerns raised in your motion?

17 ATTORNEY SEEVE: It does not, Your Honor, and  
18 I'll take both of those points separately if I may. I'm  
19 conscious of the time and I will try to speak quickly and  
20 succinctly.

21 THE COURT: Okay.

22 ATTORNEY SEEVE: First with regard to this  
23 notion that they start with the code and then make the  
24 documentation, that is simply not true.

25 Not only is that not how engineering works, that's

1 putting the cart before the horse, but also we can see  
2 from some of the comments in these documents that they are  
3 debating different design choices that might be made in  
4 the final product.

5 If the final product already existed as Mr. Kamber  
6 appears to be claiming, no such comments would make sense.  
7 So that's what we have to say about these final  
8 specifications.

9 These specifications of this type -- and I speak as a  
10 former engineer, although I'm not an expert. How  
11 engineering works is these specifications are made and  
12 finalized and then the chip is created.

13 It's just common sense and that common sense is borne  
14 out by all of the evidence we've seen in these draft  
15 documents that have been produced we believe accidentally  
16 by Google. So that is what we have to say to the first  
17 point.

18 To the second point as to the documents that we are  
19 going to be receiving soon maybe this week but as I heard  
20 Mr. Kamber say maybe after the July 4th weekend, you know,  
21 we want the documents and we're happy to get them. But  
22 the depositions in this case I think we have an average of  
23 a deposition a day between now -- I'm exaggerating perhaps  
24 but not by much -- between now and July 23rd. And many of  
25 those crucial depositions, especially the ones involving

1 issues relating to infringement, are going to occur right  
2 after the July 4th holiday.

3 So for Mr. Kamber to say that our concerns would be  
4 assuaged because we're about to receive the documents  
5 maybe just before these depositions, that does not assuage  
6 our concerns. It does not help us much.

7 THE COURT: Well, if they're being compiled and  
8 they're going to be produced, I don't know what more I can  
9 do about that. I take him at his word when he says it's a  
10 manual process, several hundred they have to go through.  
11 It's happening and maybe it might mean -- even as I'm  
12 listening to you, it might mean a deposition or two might  
13 have to be put back or rescheduled.

14 I think the best way to deal with this is to ask  
15 Google to expedite this process as much as possible,  
16 understanding it's at risk of disrupting the discovery  
17 schedule near the end of the discovery process.

18 And so to the extent you can get your client to  
19 appreciate the court is concerned that this production  
20 take place immediately, please convey to them that this  
21 really does need to happen. You know, if it means  
22 somebody working a little later, an extra person on the  
23 shift or whatever, this is one of those circumstances  
24 where it's probably reasonable to go that way.

25 Going back to the first batch and whether these



1 specifications would never have been created afterwards or  
2 before, I have no idea. You were an engineer. I've never  
3 been an engineer. I have no idea how any of that works  
4 and I don't have a basis to challenge Google's assertion  
5 here as to how it took place here.

6 I guess what I would say is this to Google. You need  
7 to be really deliberate and precise on this and maybe just  
8 go back and convey to your client, look, here is the issue  
9 as it played out and if there is a final specification, we  
10 need it now. It needs to be produced now and then it  
11 becomes moot whether it was made before or after.

12 But all of this -- I mean, I think these are  
13 reasonable requests and I understand, Mr. Kamber, you're  
14 saying you don't have any objection to turning over what  
15 you've got.

16 So to this extent I will try to moot this in this way  
17 to the extent possible. I do allow the motion to compel  
18 to the extent Google does not object to producing the  
19 requested information.

20 If it turns out, Mr. Kamber, that there is requested  
21 information that you contend does not exist, you must  
22 affirmatively state that in a response to Singular so  
23 Singular can make whatever they want to make out of that,  
24 but at least we won't be fighting any longer about whether  
25 there is actually something there. You will have answered

1 that question by stating yes or no as to whether there is  
2 something there.

3 But otherwise if you are going to be taking the  
4 position that you should not have to produce something  
5 that has been requested -- and I don't understand you to  
6 have taken that position -- then I would be asking you on  
7 an expedited basis to submit your response so we can  
8 assess that in light of Singular's motion.

9 Am I correct that you are not objecting to anything  
10 that is being sought?

11 ATTORNEY KAMBER: That's correct. We are not  
12 objecting. We can try to make the representation and  
13 certainly Mr. Seeve or whoever else on behalf of Singular  
14 can ask the engineer about this documentation and I'm sure  
15 will be doing so. So I'm happy to do that, Your Honor.

16 I'm just going to ask the practical question about  
17 what should we do with our draft opposition? It sounds  
18 like we can -- you don't need it in light of what's been  
19 discussed today?

20 THE COURT: I don't because again I am basing it  
21 on my understanding from you that you're not opposing any  
22 of the information that is being sought. So for that  
23 reason there's no need to file your opposition.

24 ATTORNEY KAMBER: Your Honor, I know it's four  
25 o'clock right now. Can I just ask -- can I just make two

1 points of clarification in terms of --

2 THE COURT: Yes.

3 ATTORNEY KAMBER: -- what I am doing?

4 In terms of the data center costs, what we are going  
5 to do, if my understanding is correct just for the record,  
6 is to get the average cost to build a data center.

7 I say that because they also asked about the cost of  
8 designing and the cost of operating a data center. I just  
9 want to be very specific in terms of what I'm trying to  
10 get in terms of information for the order side.

11 THE COURT: To me, to me that's all part of the  
12 costs of a data center. So there is -- I mean, money that  
13 is going to have to be spent to have a functioning data  
14 center is going to include design, construction, and  
15 operation costs. So this is just me. I would take the  
16 broad view on this, not the narrow view.

17 ATTORNEY KAMBER: Okay. And I think perhaps  
18 design and build might be easier than operation because  
19 these are different sizes but we'll do our best to answer  
20 that with respect to sort of the one whatever single data  
21 center, the hypothetical average data center that exists.

22 THE COURT: And part of the -- yeah, I think  
23 that's reasonable for now because I say this, and I say  
24 this to you, Singular, because if at the end of the day  
25 down the road you're successful in this suit and there

1 really is this heightened need to calculate damages with  
2 way more precision, it seems to me you'll have -- there  
3 would be the opportunity there to tweak some of this stuff  
4 and maybe to get some more information.

5 I think this is a good way to start by giving you a  
6 general cost that includes not just what it takes to build  
7 one of these things but for the brain power to design it,  
8 build it, and operate it. So thank you for that question,  
9 Mr. Kamber.

10 ATTORNEY KAMBER: One other one which is just to  
11 clarify in terms of what we are committing to do, we are  
12 going to produce -- supplement really because we've  
13 already produced a number of documents as they've  
14 recognized, supplement our production with respect to  
15 analyses that were done by the TPU team and the Platforms  
16 Group of the benefits of the TPUs to the other business  
17 units and have a witness prepared to speak on those  
18 topics.

19 THE COURT: That sounds right I mean the way you  
20 said it.

21 ATTORNEY KAMBER: Okay.

22 THE COURT: Okay.

23 ATTORNEY ERCOLINI: Your Honor, could we just  
24 ask to the extent that that analysis for the accused  
25 products has been done by anyone at Google because, you

1 know, we're specifically talking about the analysis, if  
2 someone there has done it and it's not just on the TPU  
3 team, we don't know how big that is. We don't know what  
4 the purview is, but if someone who has a financial bend  
5 there has done an analysis on these products, we think  
6 that that would be especially relevant.

7 THE COURT: I'm not sure what is it you're --

8 ATTORNEY KAMBER: I think what he's saying is we  
9 need to ask everybody else at Google whether they've also  
10 done the analysis, which is exactly why I am trying to  
11 clarify it. Because it's sort of we're obligated to do a  
12 reasonably diligent search.

13 THE COURT: Right.

14 ATTORNEY KAMBER: I know where I think I should  
15 look, but what Mr. Ercolini is saying look everywhere else  
16 too and I don't think we can practically do that.

17 THE COURT: Well, right. I think you're right  
18 in that your obligation is to do a reasonably diligent  
19 search. Obviously if you have a basis to believe you  
20 might be able to find information in a certain area, yeah,  
21 you have an obligation to search that area. But beyond  
22 that, yes, I guess I tend to agree with you.

23 Mr. Ercolini, if you're saying something different --

24 ATTORNEY ERCOLINI: Mr. Kamber just said the TPU  
25 team and it sounds like once we stop with the TPU team and

1 we don't find it, we're going to stop looking. So the  
2 reasonably dilligent search is do a reasonably diligent  
3 search and don't limit it to the TPU team, what a  
4 reasonably diligent search is.

5 THE COURT: Okay. Fair enough. It's not  
6 limited to the team. It's limited to whatever your  
7 reasonably diligent search would suggest. That's how  
8 broad it needs to be. Wherever that reasonably diligent  
9 search leads you and it may lead you to somebody beyond  
10 the team who may have had some involvement who may be able  
11 to have -- be able to provide information bearing on this.

12 I honestly don't think we're disputing anything here.  
13 I think everybody is just saying you just need to make  
14 sure your search is spiritually a genuine search designed  
15 to locate this information, and don't just focus on the  
16 human beings who are part of the team in a narrow sense if  
17 it would make sense to look elsewhere and you know where  
18 to look. Just make sure you look in all of those areas.

19 ATTORNEY KAMBER: Understood. I was just trying  
20 to say that we know -- I know personally that that exists  
21 there that I would look there; that there's somebody there  
22 who can speak to that. That doesn't mean we won't look  
23 elsewhere. I'm just trying to clarify that that's where I  
24 would start and will start.

25 THE COURT: Okay. All right.

1 With that, everybody, thank you. We are going to  
2 have to leave it there, but I think we've actually hit  
3 everything we needed to hit on this.

4 So in the future I think I've said this before and  
5 maybe you guys have availed yourself of this offer before,  
6 if you encounter a blip in this whole discovery process  
7 and you just think it would be helpful to get on the  
8 phone, not so much as a motion, just get on the phone and  
9 talk it through. We do that often.

10 We have no problem with that. All you need to do is  
11 reach out to Ms. Russo. We can usually get you on the  
12 phone within 24 hours and talk about this in an informal  
13 way and just work through whatever it is. We find that  
14 that actually helps prevent a lot of motions from being  
15 filed. So please do not be shy about reaching out to her.  
16 Okay?

17 ATTORNEY KAMBER: Thank you, Your Honor.

18 ATTORNEY ERCOLINI: Thank you, Your Honor.

19 THE COURT: And with that, we are going to have  
20 to bring it to a close. Thank you, everybody. Have a  
21 safe holiday and we will be in recess.

22 **(Hearing concluded at 4:06.)**

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July 2, 2021